

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/826,967A
Source: IFW9
Date Processed by STIC: 10/22/04

ENTERED



IFWO

RAW SEQUENCE LISTING

DATE: 10/22/2004

PATENT APPLICATION: US/10/826,967A

TIME: 12:55:31

Input Set : A:\42623-0044_seq listing.txt

Output Set: N:\CRF4\10222004\J826967A.raw

3 <110> APPLICANT: Romeo, Tony
 4 Wang, Xin
 5 Desplas, Rebecca L
 7 <120> TITLE OF INVENTION: E.Coli Mutants
 9 <130> FILE REFERENCE: 42623-0044
 11 <140> CURRENT APPLICATION NUMBER: 10/826,967A
 12 <141> CURRENT FILING DATE: 2004-04-16
 14 <150> PRIOR APPLICATION NUMBER: US 60/464,062
 15 <151> PRIOR FILING DATE: 2003-04-17
 17 <160> NUMBER OF SEQ ID NOS: 141
 19 <170> SOFTWARE: PatentIn version 3.2
 21 <210> SEQ ID NO: 1
 22 <211> LENGTH: 33
 23 <212> TYPE: DNA
 24 <213> ORGANISM: Artificial
 26 <220> FEATURE:
 27 <223> OTHER INFORMATION: primer
 30 <220> FEATURE:
 31 <221> NAME/KEY: misc_feature
 32 <222> LOCATION: (21)..(30)
 33 <223> OTHER INFORMATION: n is a, c, g, or t
 35 <400> SEQUENCE: 1
 W--> 36 ggccacgcgt cgactagtagt nnnnnnnnnn gat 33
 39 <210> SEQ ID NO: 2
 40 <211> LENGTH: 18
 41 <212> TYPE: DNA
 42 <213> ORGANISM: Artificial
 44 <220> FEATURE:
 45 <223> OTHER INFORMATION: primer
 47 <400> SEQUENCE: 2
 48 caggctctcc ccgtggag 18
 51 <210> SEQ ID NO: 3
 52 <211> LENGTH: 16
 53 <212> TYPE: DNA
 54 <213> ORGANISM: Artificial
 56 <220> FEATURE:
 57 <223> OTHER INFORMATION: primer
 59 <400> SEQUENCE: 3
 60 aaagtgcggg tgatgc 16
 63 <210> SEQ ID NO: 4
 64 <211> LENGTH: 20
 65 <212> TYPE: DNA
 66 <213> ORGANISM: Artificial

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68 <220> FEATURE:
69 <223> OTHER INFORMATION: primer
71 <400> SEQUENCE: 4
72 ggccacgcgt cgactagtac                                20
75 <210> SEQ ID NO: 5
76 <211> LENGTH: 17
77 <212> TYPE: DNA
78 <213> ORGANISM: Artificial
80 <220> FEATURE:
81 <223> OTHER INFORMATION: primer
83 <400> SEQUENCE: 5
84 ctgcctccca gaggcctg                                17
87 <210> SEQ ID NO: 6
88 <211> LENGTH: 23
89 <212> TYPE: DNA
90 <213> ORGANISM: Artificial
92 <220> FEATURE:
93 <223> OTHER INFORMATION: primer
95 <400> SEQUENCE: 6
96 ctgacgggggt ggtgcgtaac ggc                        23
99 <210> SEQ ID NO: 7
100 <211> LENGTH: 22
101 <212> TYPE: DNA
102 <213> ORGANISM: Artificial
104 <220> FEATURE:
105 <223> OTHER INFORMATION: primer
107 <400> SEQUENCE: 7
108 cactcgtgag cgcttacagc cg                            22
111 <210> SEQ ID NO: 8
112 <211> LENGTH: 23
113 <212> TYPE: DNA
114 <213> ORGANISM: Artificial
116 <220> FEATURE:
117 <223> OTHER INFORMATION: primer
119 <400> SEQUENCE: 8
120 gattcctcta tttattcgcc cgc                          23
123 <210> SEQ ID NO: 9
124 <211> LENGTH: 23
125 <212> TYPE: DNA
126 <213> ORGANISM: Artificial
128 <220> FEATURE:
129 <223> OTHER INFORMATION: primer'
131 <400> SEQUENCE: 9
132 ctaatcaacg aggaaaaagg gac                          23
135 <210> SEQ ID NO: 10
136 <211> LENGTH: 24
137 <212> TYPE: DNA
138 <213> ORGANISM: Artificial
140 <220> FEATURE:

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141 <223> OTHER INFORMATION: primer
143 <400> SEQUENCE: 10
144 aatcggtga atcccacaac ttac 24
147 <210> SEQ ID NO: 11
148 <211> LENGTH: 24
149 <212> TYPE: DNA
150 <213> ORGANISM: Artificial
152 <220> FEATURE:
153 <223> OTHER INFORMATION: primer
155 <400> SEQUENCE: 11
156 cttctgacac atgcagtgga gttg 24
159 <210> SEQ ID NO: 12
160 <211> LENGTH: 26
161 <212> TYPE: DNA
162 <213> ORGANISM: Artificial
164 <220> FEATURE:
165 <223> OTHER INFORMATION: primer
167 <400> SEQUENCE: 12
168 gcgattgtac gctgaaatga aagcac 26
171 <210> SEQ ID NO: 13
172 <211> LENGTH: 24
173 <212> TYPE: DNA
174 <213> ORGANISM: Artificial
176 <220> FEATURE:
177 <223> OTHER INFORMATION: primer
179 <400> SEQUENCE: 13
180 atgccactgc atactgatta accc 24
183 <210> SEQ ID NO: 14
184 <211> LENGTH: 28
185 <212> TYPE: DNA
186 <213> ORGANISM: Artificial
188 <220> FEATURE:
189 <223> OTHER INFORMATION: primer
191 <400> SEQUENCE: 14
192 cggtgcaa at gccagataag acactaac 28
195 <210> SEQ ID NO: 15
196 <211> LENGTH: 17
197 <212> TYPE: DNA
198 <213> ORGANISM: Artificial
200 <220> FEATURE:
201 <223> OTHER INFORMATION: primer
203 <400> SEQUENCE: 15
204 caggaaacag ctatgac 17
207 <210> SEQ ID NO: 16
208 <211> LENGTH: 25
209 <212> TYPE: DNA
210 <213> ORGANISM: Artificial
212 <220> FEATURE:
213 <223> OTHER INFORMATION: primer

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215 <400> SEQUENCE: 16
216 aaacgtgaac tgatgcaagg atcgc
219 <210> SEQ ID NO: 17
220 <211> LENGTH: 25
221 <212> TYPE: DNA
222 <213> ORGANISM: Artificial
224 <220> FEATURE:
225 <223> OTHER INFORMATION: primer
227 <400> SEQUENCE: 17
228 gatcatcgct ggcttgctga ttggc
231 <210> SEQ ID NO: 18
232 <211> LENGTH: 27
233 <212> TYPE: DNA
234 <213> ORGANISM: Artificial
236 <220> FEATURE:
237 <223> OTHER INFORMATION: primer
239 <400> SEQUENCE: 18
240 gatattgtga actatcgcaa agaatcc
243 <210> SEQ ID NO: 19
244 <211> LENGTH: 26
245 <212> TYPE: DNA
246 <213> ORGANISM: Artificial
248 <220> FEATURE:
249 <223> OTHER INFORMATION: primer
251 <400> SEQUENCE: 19
252 cgatgcacaa tgcaatcttc gttgcc
255 <210> SEQ ID NO: 20
256 <211> LENGTH: 220
257 <212> TYPE: DNA
258 <213> ORGANISM: Artificial
260 <220> FEATURE:
261 <223> OTHER INFORMATION: partial gene with transposon insert
263 <400> SEQUENCE: 20
264 caggaaacag ctatgaccat gattacgcc aagcttggtac cgagctcgga tccactagta
266 acggccgccg gtgtgctgga attcggctta agccgaattc tgcagatata catcacactg
268 gcggccgctc gagcatgcat ctagagggcc caattcgccc tatagtgaagt cgtattacaa
270 ttcactggcc gtcgttttac aacgtcgtga ctggcaaaac
273 <210> SEQ ID NO: 21
274 <211> LENGTH: 220
275 <212> TYPE: DNA
276 <213> ORGANISM: Artificial
278 <220> FEATURE:
279 <223> OTHER INFORMATION: partial gene with transposon insert
281 <400> SEQUENCE: 21
282 gtcctttgtc gatactggta ctaatgcggt tcgaaccatg gctcgagcct aggtgatcat
284 tgccggcggt cacacgacct taagccgaat tcggcttaag acgtctatag gtagtgtgac
286 cgccggcgag ctcgtacgta gatctcccgg gttaagcggg atactactca gcataatgtt
288 aagtgaccgg cagcaaaatg ttgcagcact gaccttttg
291 <210> SEQ ID NO: 22

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292 <211> LENGTH: 309
293 <212> TYPE: DNA
294 <213> ORGANISM: Artificial
296 <220> FEATURE:
297 <223> OTHER INFORMATION: partial gene with transposon insert
299 <400> SEQUENCE: 22
300 aaaaacggtt accggatccg ggatcatatg acaagatgtg tatccacctt aacttaatga      60
302 tttttaccaa aatcattagg ggattcatca gggtcaggtc tggatttaag ttccatcctt      120
304 gatagcctca cgcgcgcgca aaaagcgacg ctaaccccca tttcaaata gcaatcgctcg      180
306 tttaccgcta aacttagcgc ctacggtagc ctgaaaagcg cgctgacgac tttccagacc      240
308 gccaatactg cattgtctaa agccgatctt ttttcgcgca ccagcaccac cagcagcacc      300
310 accgcgttc                                     309
313 <210> SEQ ID NO: 23
314 <211> LENGTH: 326
315 <212> TYPE: DNA
316 <213> ORGANISM: Artificial
318 <220> FEATURE:
319 <223> OTHER INFORMATION: partial gene with transposon insert
322 <220> FEATURE:
323 <221> NAME/KEY: misc_feature
324 <222> LOCATION: (293)..(293)
325 <223> OTHER INFORMATION: n is a, c, g, or t
327 <220> FEATURE:
328 <221> NAME/KEY: misc_feature
329 <222> LOCATION: (295)..(301)
330 <223> OTHER INFORMATION: n is a, c, g, or t
332 <220> FEATURE:
333 <221> NAME/KEY: misc_feature
334 <222> LOCATION: (324)..(326)
335 <223> OTHER INFORMATION: n is a, c, g, or t
337 <400> SEQUENCE: 23
338 aaaaacggtt accggatccg ggatcatatg acaagatgtg tatccacctt aacttaatga      60
340 tttttaccaa aatcattagg ggattcatca gagttaagtc ccataccaac catggacgca      120
342 atgcagaata ttatgcctgg gtacaaaatc atctcaaaga gcatcccgca gatcgcggtg      180
344 ttgggtttaa taagatgcct ggcctggatg tttattttgc cgctgatgtt tgttacgccc      240
W--> 346 agaaagttgc gcaagaaaaa gggttttttat atcggtttaac atcacgatat ccncnnnnnn      300
348 ngtactagtc gacgcggggc caannn                                     326
351 <210> SEQ ID NO: 24
352 <211> LENGTH: 164
353 <212> TYPE: DNA
354 <213> ORGANISM: Artificial
356 <220> FEATURE:
357 <223> OTHER INFORMATION: partial gene with transposon insert
360 <220> FEATURE:
361 <221> NAME/KEY: misc_feature
362 <222> LOCATION: (1)..(1)
363 <223> OTHER INFORMATION: n is a, c, g, or t
365 <220> FEATURE:
366 <221> NAME/KEY: misc_feature

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RAW SEQUENCE LISTING ERROR SUMMARY
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Input Set : A:\42623-0044_seq listing.txt

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 21,22,23,24,25,26,27,28,29,30
 Seq#:23; N Pos. 293,295,296,297,298,299,300,301,324,325,326
 Seq#:24; N Pos. 1,135,136,138,139,141,143,145
 Seq#:25; N Pos. 6,92,134,135,139,149,152,155,157,163,170,171,226
 Seq#:27; N Pos. 350,352,354,355,356,357,358
 Seq#:29; N Pos. 4
 Seq#:30; N Pos. 1,2,4,5,10,15,16,23,153,165,179,189,198,207,232,243,248,256
 Seq#:30; N Pos. 258,268,269,279,287,289,292,304,306,310,311,312,313,317,319
 Seq#:30; N Pos. 325,326,328,332,337,341,342,344,345,347,350,355,357,361,362
 Seq#:30; N Pos. 365,367,370,371,375,379,380,381,385,386,388,389,391,396
 Seq#:31; N Pos. 196,202,207,214
 Seq#:32; N Pos. 4,217,218,219,245,247,248,249,250
 Seq#:33; N Pos. 178,185,188,195,210,213
 Seq#:34; N Pos. 10,11
 Seq#:36; N Pos. 1,3,4,5,11,186,187,188,189,190,191,192,193,194
 Seq#:37; N Pos. 7,114,118,135,149,150,161,172,194,201,202,215,229,232,246
 Seq#:37; N Pos. 249,257,275,277,280,285,290,292,293,294,298,300,301,302,303
 Seq#:37; N Pos. 304,310,314,319,320,321,323,327,330,332,334,335,336,346,349
 Seq#:37; N Pos. 350,354,358,364,369,372,373,374,380,383,384,388,390,391,392
 Seq#:38; N Pos. 3,442,449
 Seq#:40; N Pos. 1,2,6
 Seq#:41; N Pos. 2
 Seq#:42; N Pos. 3,229,230,231,232,233,234,235,236,237
 Seq#:43; N Pos. 3,119,349,350,351,352,353,355,356,357
 Seq#:44; N Pos. 4,13,181,183,185,186,187,188,189,190,191,197,198,199,202
 Seq#:44; N Pos. 206
 Seq#:45; N Pos. 179,181,196,246,248,256,261,276,277,279,293,300,302,324,331
 Seq#:45; N Pos. 339,350
 Seq#:46; N Pos. 1,10
 Seq#:47; N Pos. 2
 Seq#:48; N Pos. 1,8,306,307
 Seq#:49; N Pos. 5,269,276,277,299,300,306,313,315,318,322,328,333,339,350
 Seq#:50; N Pos. 2,3,5,8,12,112,128,137,142,147,150,157,158
 Seq#:51; N Pos. 3
 Seq#:52; N Pos. 152,155,156,157,169,365,366,367,368,369,370,372
 Seq#:53; N Pos. 3,148,151,155,156,183,184,185,186,191,192,193,194,195,196
 Seq#:53; N Pos. 197,198,199,200,201,202,203,204,208,209,210,211,212,214,217
 Seq#:53; N Pos. 220,221,223,224,225,226
 Seq#:54; N Pos. 1,2,3,5,20,158,160,161,162,165,166,191,192,193,195,196,197
 Seq#:54; N Pos. 198,199,200,201,203,204,205,207,210,213,216,220,221,225
 Seq#:55; N Pos. 397,401,404
 Seq#:56; N Pos. 4,11,13,118,119,121,122,124,125,148,152,153,154,155,156,160
 Seq#:56; N Pos. 161,163,164,165,166,167,168,174,175,176
 Seq#:57; N Pos. 273,290,291,293,295,296,298,300,307,310,321,328,330,331,332

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Seq#:57; N Pos. 339,341,342,349

Seq#:59; N Pos. 1,7

Seq#:60; N Pos. 2,3,4,5,62,78,86,96,98,110,125,132,141,157,159,173,182,194

Seq#:60; N Pos. 212,222,228,229,232,235,239,246,248,251,254,255,262,266,267

Seq#:60; N Pos. 272,276,279,280,283,285,286,288,290,293,295,298,301,302,303

Seq#:60; N Pos. 305,307,308,310,313,321,323,324,325,326,332,334,335,336,338

Seq#:60; N Pos. 339,341,342,343,344,345,346,347,349,352,353,357,358,364,366

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27

Seq#:28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51

Seq#:52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75

Seq#:76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99

Seq#:100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117

Seq#:118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135

Seq#:136,137,138,139,140,141

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L:36 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:346 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:240
M:341 Repeated in SeqNo=23
L:391 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
M:341 Repeated in SeqNo=24
L:463 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
M:341 Repeated in SeqNo=25
L:531 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:300
L:575 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
L:833 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
M:341 Repeated in SeqNo=30
L:884 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:180
L:921 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0
M:341 Repeated in SeqNo=32
L:976 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:120
M:341 Repeated in SeqNo=33
L:1000 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0
L:1063 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0
M:341 Repeated in SeqNo=36
L:1292 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0
M:341 Repeated in SeqNo=37
L:1332 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:0
M:341 Repeated in SeqNo=38
L:1389 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:0
L:1415 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:0
L:1446 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:0
M:341 Repeated in SeqNo=42
L:1487 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0
M:341 Repeated in SeqNo=43
L:1552 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:0
M:341 Repeated in SeqNo=44
L:1655 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:120
M:341 Repeated in SeqNo=45
L:1684 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0
L:1710 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:0
L:1746 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0
M:341 Repeated in SeqNo=48
L:1834 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:0
M:341 Repeated in SeqNo=49
L:1912 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:0
M:341 Repeated in SeqNo=50
L:1934 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:0
L:1984 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:120
M:341 Repeated in SeqNo=52
L:2060 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53 after pos.:0
M:341 Repeated in SeqNo=53
L:2154 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:54 after pos.:0
M:341 Repeated in SeqNo=54

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L:2200 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:360

L:2270 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56 after pos.:0